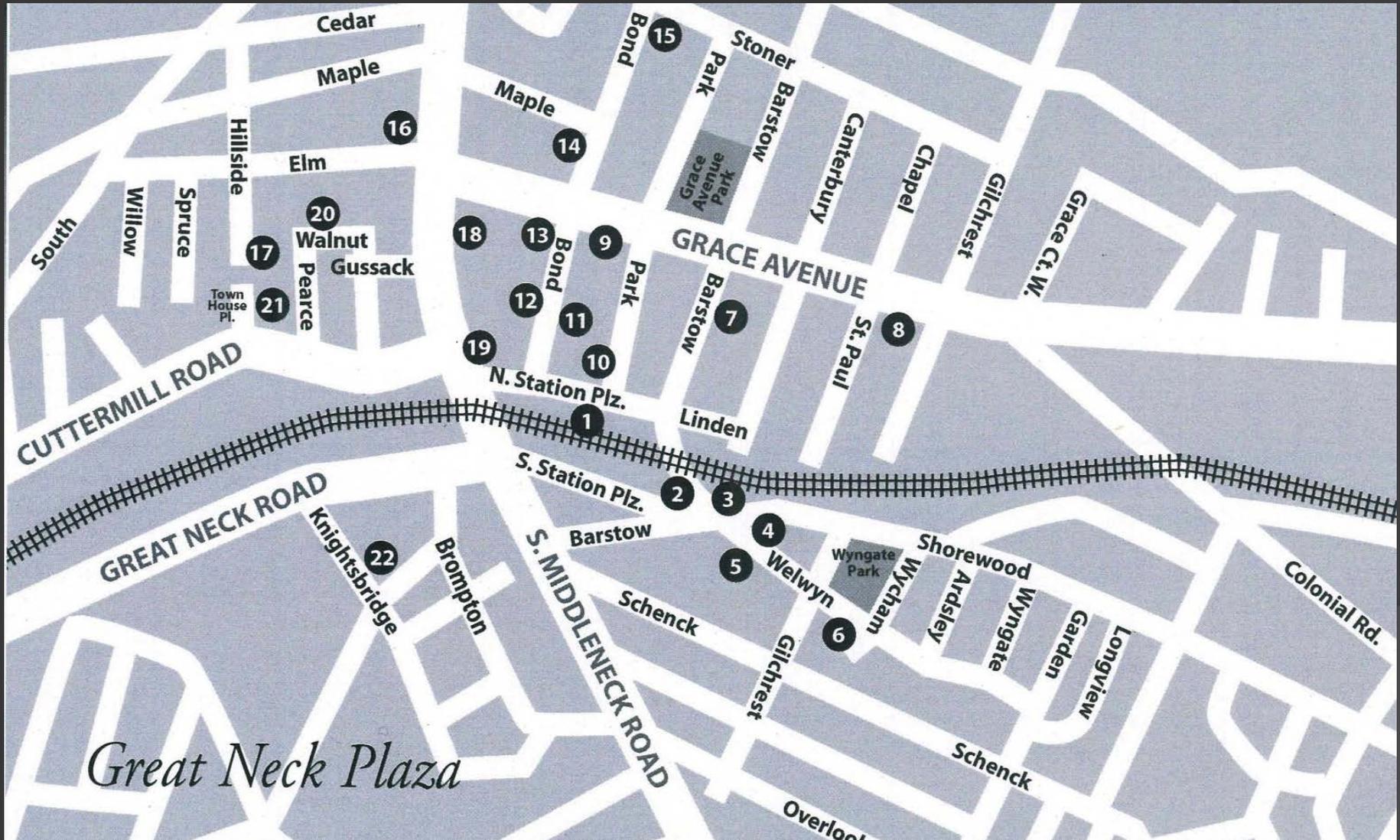


**“COMPLETE STREETS”
MEANS SAFER ACCESS STREETS
FOR ALL USERS**

**TRAFFIC CALMING CASE STUDIES
VILLAGE OF GREAT NECK PLAZA, NY**

**VISION LI SMART GROWTH SUMMIT
NOVEMBER 18, 2011**

VILLAGE OF GREAT NECK PLAZA, NEW YORK



What does a “complete street” look like in Great Neck Plaza ?

- calming or slowing speeds for motor vehicles,
- minimizing potential for vehicle conflicts to reduce accidents (fewer collisions and lessening their severity),
- increasing safety (and the perception of safety) for pedestrians, bicyclists and all non-motorized users,
- reducing the need for police enforcement,
- enhancing the street environment (e.g., streetscape amenities, such as benches, bus shelters, bicycle racks),
- increasing access for all modes & all users of transportation.

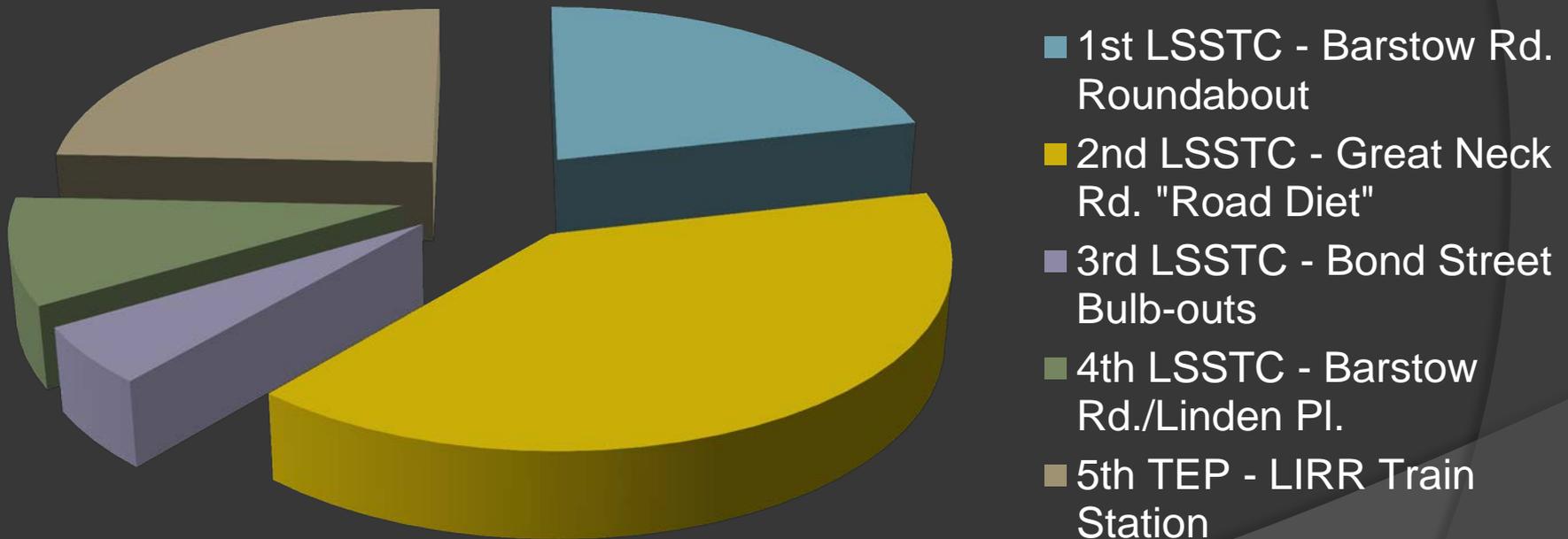
PROGRAM GUIDELINES

LOCAL SAFE STREETS AND TRAFFIC CALMING (LSSTC) & TEP

- FEDERAL TRANSPORTATION GRANT MONIES ADMINISTERED BY NEW YORK STATE DOT FUNDING IN TWO (2) PROGRAMS:
 - *“LOCAL SAFE STREETS AND TRAFFIC CALMING PROGRAM” (80-90 PERCENT)*
 - *“TRANSPORTATION ENHANCEMENT PROGRAM” (80 PERCENT)*
- LOCAL MUNICIPAL CONTRIBUTION (10-20 PERCENT)

Five Implemented Traffic Calming Initiatives in Ten Years – nearly \$3 Million in Improvements

Traffic Calming Projects



SEMINAL PROJECT – GREAT NECK ROAD “ROAD DIET” HIGHLIGHTS

- Awarded LSSTC grant in December 2001 (Village’s 2nd LSSTC)
- Preliminary & final design process spanned over four years due to local opposition
- “Visioning process” to reach community consensus on master plan for roadway’s rehabilitation
- Partnered with Town of North Hempstead, Nassau County and local fire departments in M.O.U.
- Numerous informal meetings with all partners including surrounding village mayors, special districts (Great Neck Park District and Belgrave WPCD)
- Completed construction in Fall 2008

GREAT NECK RD. PHOTOS “BEFORE”



- Original 1920's concrete pavement with two (2) lanes in each direction made for a speedway, and unsafe conditions for pedestrians/bicyclists
- Pavement worn smooth and skid resistance was poor, high accident history of 65.5 crashes/yr.
- Numerous breaks in 4-ft. wide raised median rendered it ineffective



- Portions of 4-ft. median with overhead lighting, posed tremendous safety concern in vehicular accidents
- Note: vehicle speed at 37 mph in radar device; over 30 mph posted village speed limit

GREAT NECK ROAD “ROAD DIET” PHOTOS -“AFTER”



- One travel lane in each direction, 12' width (10' before) and 3' curb offset
- Re-constructed center median of 10' with 3' wide stamped asphalt pavement (Streetprint) mow strip areas along both sides
- 2 ft. safety strip along travel lane for parking and safe access for bicyclists



- Aerial view from rooftop of commercial office bldg. at 111 Great Neck
- Vehicles traveling in a single lane, 30 mph speed limit is achieved and now better obeyed (feeling that traffic is truly “calmed” and much slower, safer for all modes)

GREAT NECK ROAD TRAFFIC CALMING FEATURES

- One lane in each direction of travel was removed -"Road Diet"
- Left/U-turn lanes provided at intersections
- Roadway resurfaced with new asphalt to increase skid resistance
- Consistent, wider landscaped median was re-established
- Bulb-out sidewalks to reduce crossing distances for pedestrians
- High-visibility crosswalk markings and warning signs
- Pedestrian refuges in median to minimize exposure of pedestrians to traffic
- Safety zone between travel lane and parked vehicles to improve safety for drivers entering/exiting their vehicles, and for bicyclists

COMPLETED TRAFFIC CALMING IMPROVEMENTS – 2nd LSSTC GRANT

Great Neck Road Rehabilitation - \$1,191,000

- ✓ ROAD DIET FOR 0.9-MILE ROADWAY COMPLETED IN FALL, 2008
- ✓ RECONSTRUCTED MEDIAN, ENHANCED PEDESTRIAN CROSSWALKS AND “COUNTDOWN” PEDESTRIAN SIGNAL DISPLAYS
- ✓ 2 FT. SAFETY ZONE ESTABLISHED BETWEEN TRAVEL LANE AND PARKED VEHICLES – SHARED USE FOR PEOPLE ENTERING/EXITING VEHICLE AND FOR BICYCLISTS

GREAT NECK ROAD RESULTS POST CONSTRUCTION STUDY

Great Neck Road Safety Highlights for All Users

- ✓ “ROAD DIET” ELIMINATING ONE TRAVEL LANE RESULTED IN ONLY **MINOR ADDITIONAL DELAY** (2.7 SECONDS) AT TWO INTERSECTIONS IN 0.9-MILE ROAD
- ✓ CRASH DATA “BEFORE” OF 172 CRASHES (JAN. 2005 – DEC. 2007) REDUCED TO 88 CRASHES IN 23 MONTHS “AFTER” CONSTRUCTION, A **64.3% ANNUALIZED REDUCTION IN INJURY-RELATED ACCIDENTS**
- ✓ CRASH DATA IN ALL CATEGORIES SHOWED ROAD DIET SUCCESSFUL IN CALMING TRAFFIC & WITH SAFER PEDESTRIAN CROSSINGS. ROADWAY PREVIOUSLY HAD **CRASHES (28.3 acc./million vehicle miles) 6.62 TIMES HIGHER THAN STATEWIDE AVERAGE (4.27 acc./mill.)**
- ✓ MORE ACCIDENTS THAN SIMILAR ROADS OF ITS TYPE AND NEEDED TO BE REHABILITATED & MADE SAFER
- ✓ THANKS TO OUR PARTNERS, NYSDOT AND FEDERAL FUNDING, ROAD HAS BEEN MADE SAFER AND INCORPORATED “COMPLETE STREET” DESIGN PRINCIPLES

FOUR OTHER IMPLEMENTED TRAFFIC CALMING PROJECTS

- ① 1ST LSSTC – Barstow Road Roundabout
- ③ 3rd LSSTC – Bond Street Bulb-outs or Curb Extensions
- ④ 4th LSSTC – Barstow Road/Linden Place Traffic Calming
- ⑤ 5th Transportation Enhancement Project (TEP) for Middle Neck Road Pedestrian and Bicycle Improvements

ROUNDBABOUT PHOTOS “BEFORE”



Raised concrete island for channelization, more visible stop signs, and right turn separator (Problem: Long, 120-ft. crossing, limited pedestrian refuge & limited ped. separation from vehicles).



- **Tiny** traffic circle, four-way stops at intersection caused great motorist confusion (who gets to go?).
- **“Rolling”** stops + thru traffic speeds = not seeing pedestrians caused accidents and near accidents
- **Reduced** visibility in traffic circle

ROUNDBOUT PHOTO “AFTER” - 2003



ROUNDBABOUT - MORE RECENT PHOTOS WITH ADDITIONS



Added "Yield to Pedestrian in Crosswalk" signage at all 4 approaches to supplement pavement markings.



Center island mound showing plantings are maturing and filling in. In background, a MTA-LI Bus negotiates turn with protective railing for pedestrians visible.

ROUNDABOUT FEATURES

- **Bulb-out sidewalks** installed to reduce crossing distances for pedestrians
- **Contrasting pavement** coloring (brick color) for crosswalk pavement
- **"YIELD" markings** for pedestrians in crosswalks
- **Pedestrian refuges** in "splitter" islands minimize exposure of pedestrians to traffic
- **Mountable curb** accommodates MTA-LI commuter buses and other large vehicles

ROUNABOUT FINDINGS & SUMMARY

- ⦿ Safer intersection with reduced potential for conflicts (8 conflict points for roundabout versus 32 potential vehicle-to-vehicle conflicts for a typical intersection)
- ⦿ Separation of pedestrians from vehicular movements in the circle with designated walkways and railings to keep pedestrians away from vehicles in circulatory roadway
- ⦿ Proven to be safer for motorists, pedestrians and bicyclists, including public reaction that it feels safer; fewer pedestrian accidents reported
- ⦿ Moves traffic more efficiently and with less delay
- ⦿ Less air and noise pollution
- ⦿ More aesthetic treatment with plantings in central island

SPEED AWARENESS DEVICES

Permanent overhead devices with radar detection and digital readout for “Your Speed” versus posted Speed Limit



PEDESTRIAN SAFETY SYSTEMS

Illuminated overhead blinking ped. warning sign advising motorists of pedestrians crossing @ mid-block location



COMPLETED TRAFFIC CALMING IMPROVEMENTS – 1ST LSSTC GRANT

Phase I - \$365,000

- ✓ **ROUNDAABOUT** AT “BARSTOW CIRCLE” COMPLETED IN FALL, 2003
- ✓ RENAMED WALTER HANDELMAN ROUNDAABOUT IN NOVEMBER, 2005 IN HONOR OF OUR LATE VILLAGE ENGINEER

Phase II - \$275,000

- ✓ OVERHEAD **SPEED AWARENESS DEVICES** COMPLETED IN FEB., 2004
- ✓ **PEDESTRIAN SAFETY SYSTEMS** COMPLETED IN FEB., 2004

BOND STREET PHOTOS “BEFORE”



Existing Condition in Feb. 2008: Original wide suburban local street with one lane in each direction, and wide crossing of 44 feet for pedestrians.

Problem: Numerous conflicts with turning vehicles and pedestrians crossing at busy downtown intersection to restaurants (Great Neck Diner), train station (at other end of block) and retail stores on Bond Street.

BOND STREET BULB-OUTS “AFTER”



June 2010: Constructed Bulb-out at Grace Avenue looking east toward Great Neck Diner.



June 2010: Constructed Bulb-out at Grace Avenue looking west toward Star Spa

Benefit: Crossing distance of 44 feet was shortened 14 feet to a 30 feet crossing, making it safer, and easier for pedestrians, especially for those who are slower moving and physically challenged

COMPLETED TRAFFIC CALMING IMPROVEMENTS – 3rd LSSTC GRANT

Bond Street Bulb-outs or Extensions - \$152,250

- ✓ SIDEWALK BULB-OUTS OR EXTENSIONS ON FOUR CORNERS OF 0.1-MILE DOWNTOWN ROADWAY COMPLETED IN SUMMER, 2010
- ✓ SHORTER PEDESTRIAN CROSSING TIME AND DISTANCES
- ✓ INSTALLED ADA CROSSWALK RAMPS
- ✓ RESURFACED BOND STREET
- ✓ RETAINED ON-STREET PARALLEL PARKING

BARSTOW ROAD/LINDEN PL. PHOTOS - “BEFORE”



Existing Condition in July 2009: Original suburban local street with one lane in each direction, wide crossing for pedestrians and skewed intersection with Linden Place.

Problem: Numerous conflicts with turning vehicles and pedestrians crossing at busy downtown intersection to Andrew Hotel & Colbeh Restaurant, NY Sports Club and train station (to the right) and park (in background on Grace Avenue).

BARSTOW ROAD/LINDEN PL. PHOTOS - “AFTER”



Completed in September 2010: Normalized intersection with shorter pedestrian crossings, pedestrian refuges at all approaches, more highly visible crosswalks with ADA ramps, yield markings, and site lighting.

Benefit: Reduced conflicts with turning vehicles, lessened “rolling stops” and improved pedestrian safety by building more sidewalks, median island refuges, bulb-outs and tightening/normalizing intersection.

COMPLETED TRAFFIC CALMING IMPROVEMENTS – 4th LSSTC GRANT

Barstow Road/No. Station Plaza and Linden Place Traffic Calming - \$280,000

- ✓ NORMALIZED INTERSECTION TO REDUCE “SKEW” COMPLETED IN SUMMER, 2010
- ✓ BULB-OUTS OR EXTENSIONS ON CORNERS TO SLOW VEHICLES ENETRING INTERSECTION
- ✓ MEDIAN ISLANDS AT EVERY APPROACH TO SLOW VEHICLES AND PROVIDE PEDESTRIAN REFUGES
- ✓ SHORTENED PEDESTRIAN CROSSWALKS & INCREASED SIGNAGE , INSTALLED ADA CROSSWALK RAMPS
- ✓ REHABILITATED PAVEMENT WITH ASPHALT OVERLAY AND NEW PAVEMENT MARKINGS
- ✓ PROVIDED STREETSCLAPING / LANDSCAPING IMPROVEMENTS
- ✓ RETAINED ON-STREET PARALLEL PARKING

MIDDLE NECK ROAD PEDESTRIAN & BICYCLIST PHOTOS - “BEFORE”



Existing Condition in July 2009: Original LIRR Great Neck station access way with cars stopping in haphazard patterns and conflicting with pedestrians, wide undefined travel lanes and limited markings for pedestrians.

Problem: Busy train station with numerous fast approaching vehicles in “kiss and ride” drop off area, wide undefined travel lanes, and limited pavement markings to direct pedestrians arriving on foot, in buses, taxis and on bicycles.

5th TEP GRANT – MIDDLE NECK ROAD PEDESTRIAN & BICYCLIST PHOTOS - “BEFORE”



Existing Condition in July 2009: Unprotected bicycle racks that are disorganized and scattered throughout LIRR Great Neck station making it difficult for commuters who choose to ride a bicycle to take mass transit.

Opportunity: How can we provide a better arranged and protected bicycle rack system for encouraging this mode of travel to the train station?

MIDDLE NECK ROAD PEDESTRIAN & BICYCLIST PHOTOS - “BEFORE”



Existing Condition in July 2009: Unused, unattractive asphalt sidewalk and plain, cement wall = urban design opportunity for enhancement with upgraded streetscape and public art.

Opportunity: How can we provide a more attractive, enhanced walkway, and a quiet respite to enjoy public art on the way to / from the train station?

MIDDLE NECK ROAD PEDESTRIAN & BICYCLIST PHOTOS - “AFTER”



October 2011: Reconstructed access way with raised brick median separating “kiss and ride” commuters from bus patrons at outer curb with enhanced pavement markings for travel lanes, highly visible pedestrian crossings and direction arrows. Also note ADA curb ramps, new site lighting, new trees and tree pits, and brick sidewalks throughout.

Benefit: Great Neck train station is one of the busiest stations on Port Washington Branch with approx. 14,000 passengers per day. TEP Grant provided for safer drop off/pick up area, improved access for pedestrians, bus patrons, and bicyclists.

MIDDLE NECK ROAD PEDESTRIAN & BICYCLIST PHOTOS - “AFTER”



October 2011: Reconstructed new & improved bicycle parking facilities. Bicycle racks organized on a new, raised concrete pad with overhead canopy to protect bicycles.

Benefit: TEP Grant provided for enhanced, protected bicycle parking facilities to encourage alternate travel mode via bicycles to the Great Neck train station.

MIDDLE NECK ROAD PEDESTRIAN & BICYCLIST PHOTOS - “AFTER”



November 16, 2011: Installation of "Sunset on the Sound" mosaic tile public art mural with improved new brick sidewalks, benches and site landscaping to enhance the station area.

Benefit: TEP Grant provided for enhanced, aesthetic improvements, including new site furnishings, decorative paving in village's brick standard, site lighting, trees / plantings, and public art at busy, intermodal Great Neck train station.

QUESTIONS?

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